

File 344:Chinese Patents Abs Aug 1985-2003/Mar
(c) 2003 European Patent Office
File 347:JAPIO Oct 1976-2003/Apr(Updated 030804)
(c) 2003 JPO & JAPIO
File 348:EUROPEAN PATENTS 1978-2003/Aug W04
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File 349:PCT FULLTEXT 1979-2002/UB=20030828,UT=20030821
(c) 2003 WIPO/Univentio
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200355
(c) 2003 Thomson Derwent
? ds

Set	Items	Description
S1	0	AU=(GARRITSEN, F? OR GARRITSEN F?)

File 2:INSPEC 1969-2003/Aug W4
(c) 2003 Institution of Electrical Engineers
File 6:NTIS 1964-2003/Aug W5
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File 8:Ei Compendex(R) 1970-2003/Aug W4
(c) 2003 Elsevier Eng. Info. Inc.
File 34:SciSearch(R) Cited Ref Sci 1990-2003/Aug W4
(c) 2003 Inst for Sci Info
File 35:Dissertation Abs Online 1861-2003/Aug
(c) 2003 ProQuest Info&Learning
File 65:Inside Conferences 1993-2003/Aug W5
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File 94:JICST-EPlus 1985-2003/Aug W5
(c)2003 Japan Science and Tech Corp(JST)
File 95:TEME-Technology & Management 1989-2003/Aug W3
(c) 2003 FIZ TECHNIK
File 99:Wilson Appl. Sci & Tech Abs 1983-2003/Jul
(c) 2003 The HW Wilson Co.
File 144:Pascal 1973-2003/Aug W4
(c) 2003 INIST/CNRS
File 233:Internet & Personal Comp. Abs. 1981-2003/Jul
(c) 2003, EBSCO Pub.
File 239:Mathsci 1940-2003/Oct
(c) 2003 American Mathematical Society
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
(c) 1998 Inst for Sci Info
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
(c) 2002 The Gale Group
File 603:Newspaper Abstracts 1984-1988
(c)2001 ProQuest Info&Learning
File 483:Newspaper Abs Daily 1986-2003/Sep 02
(c) 2003 ProQuest Info&Learning
File 248:PIRA 1975-2003/Aug W5
(c) 2003 Pira International
? ds

Set	Items	Description
S1	633607	FONT?? OR CHARACTER?? OR LETTERS
S2	2852462	EMULAT? OR SIMULAT?
S3	632	(USING OR UTILI?) AND (SECOND OR ANOTHER) AND FONT??
S4	563	(STRIPPING OR TAKING OR EDITING) AND (TOP(3N)LINE? OR BOTT-OM()LINE?)
S5	1	S4 AND (PIXEL? OR PEL OR PICTURE()ELEMENT?)
S6	117872	S1 AND (PART OR PARTS OR SECTION?? OR POINT?? OR SEGMENT?? OR PORTION?? OR FRAGMENT? OR PARTIAL)
S7	18923	(GENERAT? OR CREAT? OR RENDER? OR PRODUC?) AND (ANOTHER OR SECOND OR ADDITIONAL) AND S1
S8	252210	COPYING OR STORING OR STORE
S9	1420	EIGHT(3N)FOURTEEN OR EIGHT(3N)SIXTEEN
S10	758	NINE(3N)FOURTEEN OR NINE(3N)SIXTEEN
S11	8	9X16 OR 8X14
S12	6	9X14 OR 8X14
S13	98610	(CHANG? OR REDUC? OR MINIMI? OR SHRINK? OR SHORTER? OR SMALLER?) AND S1
S14	3	AU=(GARRITSEN, F? OR GARRITSEN F?)
S15	0	S13 AND S9 AND S10 AND S11 AND S12
S16	2	S13 AND S4
S17	2	S16 NOT S5
S18	2	RD S17 (unique items)
S19	0	S14 AND S1
S20	2	RD S14 (unique items)

S21	827	S6 AND (PIXEL? OR PEL OR PICTURE()ELEMENT?)
S22	182	S21 AND (CHANG? OR REDUC? OR MINIMI? OR SHRINK? OR SHORTER?
		OR SMALLER? OR DECIMAT?)
S23	48	S22 AND (SIZE OR HEIGHT)
S24	20	S23 AND PY=2000:2003
S25	28	S23 NOT S24
S26	20	RD S25 (unique items)
S27	10	S13 AND S9:S12
S28	10	S27 NOT (S5 OR S16 OR S23)
S29	9	RD S28 (unique items)
S30	1	S29 NOT (PEOPLE OR TEENAGERS OR ANXIETY OR SOCIAL OR FAUNA
		OR MACBETH OR GIRLS OR MALES OR LITERATURE OR EDUCATION OR SC-
		HOOL? OR PULMONARY OR SPECIES)

5/3,K/1 (Item 1 from file: 233)

DIALOG(R)File 233:Internet & Personal Comp. Abs.

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00537497 99DU06-006

Epson Expression 800 Professional -- A speedy, productive new member of the family

Menten, Nils

Desktop Publishers Journal , June 1, 1999 , v11 n6 p16, 1 Page(s)

ISSN: 1093-1732

Company Name: Epson America

URL: <http://www.epson.com>

Product Name: Epson Expression 800 Professional

...America (800). Says that it is available in three configurations, the one tested being the **top** of the **line** model that includes Epson's TWAIN Pro scanner import driver for image **editing** applications, Xerox TextBridge Classic OCR software, several additional software packages, and a transparency unit. Adds...

... than the 800 X 3,200dpi hardware resolution are arrived at through interpolation of neighboring **pixels** , which Epson claims will raise the resolution to 12,800 X 12,800dpi. Calls it...

?

18/3,K/1 (Item 1 from file: 483)
DIALOG(R)File 483:Newspaper Abs Daily
(c) 2003 ProQuest Info&Learning. All rts. reserv.

05730409

Install Now?

Musgrove, Mike; Ham, Tom; Gaudiosi, John; Greenberg, Daniel
Washington Post, Sec E, p 12, col 1

Oct 1, 1999

ISSN: 0190-8286 NEWSPAPER CODE: WP

DOCUMENT TYPE: Product Review-Comparative; Newspaper

LANGUAGE: English RECORD TYPE: ABSTRACT

LENGTH: Long (18+ col inches)

...ABSTRACT: to load this program with enough information to make it justify the space it's **taking** up on my hard drive. (The basic version takes up from 135 to 150 megabytes...

...version will munch at least 785 megs.) Unfortunately, that Web-browser interface is the big **change** in this version of Works (it's showing up in a lot of Microsoft programs...

...a "history" menu of recently opened files, which helps in locating all those half-typed **letters**. And at least pruning the clutter is quick, needing only a right-click on each...

...same, with less accuracy, for your grammar. The other components of Works offer few detectable **changes** from previous versions. **Bottom**

line : Plenty of room for improvement for the next release.

18/3,K/2 (Item 2 from file: 483)
DIALOG(R)File 483:Newspaper Abs Daily
(c) 2003 ProQuest Info&Learning. All rts. reserv.

05121831

A Welcome Adoption Initiative

Close, James J

Chicago Tribune, Sec 1, p 20, col 4

Jul 11, 1998

ISSN: 1085-6706 NEWSPAPER CODE: CT

DOCUMENT TYPE: Letter; Newspaper

LANGUAGE: English RECORD TYPE: ABSTRACT

LENGTH: Medium (6-18 col inches)

...ABSTRACT: was good news to read that the Illinois Department of Children and Family Services is **taking** steps to increase the number of adoptions by inviting health care employees to consider adopting...

...adoption agenda is a fresh, serious effort to get more children into caring homes. The **bottom line** is that both the kids and the families now will have an opportunity to share in one of life's profound joys--knowing family love firsthand. **Taking** on the responsibility of caring for a child should be considered carefully, with a fully...

...are the most likely candidates for this program. It's a decision fraught with life- **changing** significance, and allowances need to be made by those employers working in concert with DCFS...

DESCRIPTORS: **Letters** to the editor...

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20/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

00072238 INSPEC Abstract Number: B69024735, C69010258

Title: Radio-isotopes for technical measurements in industry

Author(s): Houtman, J.P.W.; **Garritsen, F.A.**

Journal: Polytechnisch Tijdschrift Procestechniek vol.24, no.9 p.
299-303

Publication Date: May 1969 Country of Publication: Netherlands

CODEN: PTPTBP ISSN: 0032-4094

Language: Dutch

Subfile: B C

Author(s): Houtman, J.P.W.; **Garritsen, F.A.**

20/3,K/2 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

(c) 2003 INIST/CNRS. All rts. reserv.

05804062 PASCAL No.: 84-0305314

Inheritance of spine formation on seeds of carrot (Daucus carota L.)

NIEUWHOF M; **GARRITSEN F**

IVT, inst. horticultural plant breeding, Wageningen, Netherlands

Journal: Euphytica, 1984, 33 (1) 75-80

Language: English

NIEUWHOF M; **GARRITSEN F**

?

26/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6491281 INSPEC Abstract Number: B2000-03-7260D-009, C2000-03-7460-038

Title: Evaluation of required HMD resolution and field of view for a virtual cockpit simulation

Author(s): Schiefele, J.; Albert, O.; Dorr, K.U.; Kelz, M.; Schmidt-Winkel, N.

Author Affiliation: Inst. for Flight Mech. & Control, Darmstadt Univ. of Technol., Germany

Journal: Proceedings of the SPIE - The International Society for Optical Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA) vol.3689 p.143-54

Publisher: SPIE-Int. Soc. Opt. Eng,

Publication Date: 1999 Country of Publication: USA

CODEN: PSISDG ISSN: 0277-786X

SICI: 0277-786X(1999)3689L:143:ERRF;1-N

Material Identity Number: C574-1999-233

U.S. Copyright Clearance Center Code: 0277-786X/99/\$10.00

Conference Title: Helmet- and Head-Mounted Displays IV

Conference Sponsor: SPIE

Conference Date: 5-6 April 1999 Conference Location: Orlando, FL, USA

Language: English

Subfile: B C

Copyright 2000, IEE

...Abstract: of today's simulations very expensive, heavy, and large equipment is needed. In order to **reduce** prototyping and training costs, immersive "Virtual Cockpit Simulation" (VCS) becomes very attractive. Head Mounted Displays...

... from 30 degrees to 100 degrees . Their task was to find and count light arbitrary **points** located at different panels in a limited time. To evaluate cross viewing test persons also had to detect light points besides them while reading text in front of them. Based on the test results a...

... for HMD resolution are virtual flight guidance displays rendered in a virtual scene at correct **size** and location. They consist of small moving low contrast symbols. Under a hi-resolution (1280*1024) HMD test persons were asked to read-out **letters** , numbers, and symbols of different sizes, movement speeds, and contrasts. Some test persons also had to fulfill an additional task to lreduce their attention. From the test results a minimal necessary symbol, letter, and number **size** was determined for hi-resolution (hires) HMDs.

...Identifiers: light **points** ; ...

...1280 **pixel** ; ...

...1024 **pixel** ; ...

...1310720 **pixel**

26/3,K/2 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6470711 INSPEC Abstract Number: B2000-02-6135E-134, C2000-02-1250B-027

Title: Image coding using neighbourhood relations

Author(s): Tsang, I.J.; Tsang, I.R.; Van Dyck, D.
Author Affiliation: Dept. of Phys., Antwerp Univ., Belgium
Journal: Pattern Recognition Letters Conference Title: Pattern Recognit.
Lett. (Netherlands) vol.20, no.11-13 p.1279-86
Publisher: Elsevier,
Publication Date: Nov. 1999 Country of Publication: Netherlands
CODEN: PRLEDG ISSN: 0167-8655
SICI: 0167-8655(199911)20:11/13L:1279:ICUN;1-9
Material Identity Number: D719-2000-001
U.S. Copyright Clearance Center Code: 0167-8655/99/\$20.00
Conference Title: Pattern Recognition in Practice VI
Conference Date: 2-4 June 1999 Conference Location: Vlieland,
Netherlands
Language: English
Subfile: B C
Copyright 2000, IEE

...Abstract: images based on neighbourhood relations is used for the problem of handwritten numerals recognition. Each **pixel** of an image is transformed into a set of representative vectors by coding it according...

... vectors are transformed into a set of codes satisfying the boundary condition imposed by the **size** of the image in which the shape is embedded. A code **reduction** function is used for the purpose of information **reduction** and generalization of the shape images. Using the digits of the NIST handwritten **segmented characters** set, we show an application of the neighbourhood coding for pattern recognition.

...Descriptors: handwritten **character** recognition...

...Identifiers: handwritten **character** recognition...

...code **reduction** function...

26/3,K/3 (Item 3 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6452097 INSPEC Abstract Number: B2000-02-6135E-050, C2000-02-1250-012

Title: Pattern recognition using neighborhood coding
Author(s): Tsang, I.R.; Tsang, I.J.; Scheunders, P.; Van Dyck, D.
Author Affiliation: Dept. of Phys., Antwerp Univ., Belgium
Conference Title: Joint Conference on Intelligent Systems 1999 (JCIS'98)
Part vol.4 p.250-3 vol.4
Publisher: Assoc. for Intell. Machinery, USA
Publication Date: 1998 Country of Publication: USA 4 vol. 1921 pp.
ISBN: 0 9643456 7 6 Material Identity Number: XX-1999-02893.
Conference Title: Proceedings of 6th International Conference on Fuzzy Theory and Technology
Conference Sponsor: Assoc. for Intell. Machinery; Machine Intell. & Fuzzy Logic Lab.; Elsevier Publishing Co.; Inf. Sci. Journal; US Army Res. Office ; Lab. for Intell. & Nonlinear Control; Duke Univ
Conference Date: 23-28 Oct. 1998 Conference Location: Research Triangle Park, NC, USA
Language: English
Subfile: B C
Copyright 1999, IEE

...Abstract: shape is transformed into a set of representative code vectors (position-invariant) by coding each **pixel** according to the number of neighbors in the four directions (north, east, south, west).. These...

... are then transformed into a set of codes satisfying the boundary condition given by the **size** of the image where the shape is embedded. A code **reduction** scheme is proposed for the purpose of information **reduction** and generalization of the shape image. Using the digits 1 and 0 of the NIST handwritten **segmented** characters set we show a preliminary application for pattern recognition.

Descriptors: **character** sets...

...Identifiers: image **size** ; ...

...code **reduction** scheme...

...information **reduction** ; ...

...NIST handwritten **segmented** **characters** set

26/3,K/4 (Item 4 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6051282 INSPEC Abstract Number: C9811-6130D-017

Title: A method of scale conversion for binary image including dithered image

Author(s): Kurosu, Y.

Author Affiliation: Data Storage & Retrieval Div., Hitachi Ltd., Odawara, Japan

Journal: Systems and Computers in Japan vol.29, no.6 p.28-37

Publisher: Scripta Technica,

Publication Date: 15 June 1998 Country of Publication: USA

CODEN: SCJAEP ISSN: 0882-1666

SICI: 0882-1666(19980615)29:6L:28:MSCB;1-E

Material Identity Number: J969-98012

U.S. Copyright Clearance Center Code: 0882-1666/98/060028-10

Language: English

Subfile: C

Copyright 1998, IEE

Abstract: To process a **character** /picture combined document (including dithered images) in a filing system, high quality scale conversion of documents is required. If a binary document-image including a dithered image is **reduced** based on its gray scale, its **character** region blurs. If a dithered image is **reduced** by coordinate conversion alone, moire patterns occur in the dithered regions. This paper proposes a method which **reduces** these two region types separately by discriminating them based on the dispersion of black **pixels** and the shape of the picture/photograph. Subjective evaluation of the method was carried out by six male markers, by scoring the **reduced** images on a scale of five grades, the highest being 5. The images processed by...

... were evaluated as higher in quality than those by a conventional method by 1.5 **points** (maximum) and by 0.5 **point** (mean). The accuracy of area discrimination was also evaluated by using different **character** sizes. When **characters** are larger than 5.6 **points** (**font size**), the image can be recognized with an accuracy of 100%. Using the proposed method, therefore, binary images including dithered images can be **reduced** with little deterioration.

...Identifiers: black **pixels** ;

26/3,K/5 (Item 5 from file: 2)

DIALOG(R)File 2:INSPEC

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6027752 INSPEC Abstract Number: B9810-6140C-685, C9810-1250B-027

Title: PC based number plate recognition system

Author(s): Coetzee, C.; Botha, C.; Weber, D.

Author Affiliation: Dept. of Electr. & Electron. Eng., Stellenbosch Univ., South Africa

Conference Title: IEEE International Symposium on Industrial Electronics. Proceedings. ISIE'98 (Cat. No.98TH8357) Part vol.2 p.605-10 vol.2

Publisher: IEEE, New York, NY, USA

Publication Date: 1998 Country of Publication: USA 2 vol. xvii+736 pp.

ISBN: 0 7803 4756 0 Material Identity Number: XX98-02191

U.S. Copyright Clearance Center Code: 0 7803 4756 0/98/\$10.00

Conference Title: IEEE International Symposium on Industrial Electronics. Proceedings. ISIE'98

Conference Sponsor: IEEE Ind. Electron. Soc.; Univ. Pretoria; Soc. Instrum. & Control Eng. (Japan); South African Council for Autom. & Comput. ; South African Inst. Meas. & Control; South African Inst. Electr. Eng

Conference Date: 7-10 July 1998 Conference Location: Pretoria, South Africa

Language: English

Subfile: B C

Copyright 1998, IEE

...Abstract: in similar systems. A simple yet highly effective rule-based algorithm detects the position and **size** of number plates. **Characters** are **segmented** from the thresholded plate using blob-colouring, and passed as 15*15 **pixel** bitmaps to a neural network based optical **character** recognition (OCR) system. A novel dimension **reduction** technique **reduces** the neural network inputs from 225 to 50 features. Six small networks in parallel are used, each recognising six **characters**. The system can recognize single and double line plates under varying lighting conditions and slight...

...Descriptors: optical **character** recognition

...Identifiers: **size** detection...

...neural network based optical **character** recognition...

...dimension **reduction** technique

26/3,K/6 (Item 6 from file: 2)

DIALOG(R)File 2:INSPEC

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5758079 INSPEC Abstract Number: B9801-6140C-041, C9801-5260B-019

Title: A method of scale transformation for document image including dithered image

Author(s): Kurosu, Y.

Author Affiliation: Div. of Data Storage & Retrieval Syst., Hitachi Ltd., Odawara, Japan

Journal: Transactions of the Institute of Electronics, Information and Communication Engineers D-II vol.J80D-II, no.10 p.2723-32

Publisher: Inst. Electron. Inf. & Commun. Eng,

Publication Date: Oct. 1997 Country of Publication: Japan

CODEN: DTGDE7 ISSN: 0915-1923

SICI: 0915-1923(199710)J80DII:10L.2723:MSTD;1-C

Material Identity Number: M973-97011
Language: Japanese
Subfile: B C
Copyright 1997, IEE

Abstract: When we transfer binary image data between communicating machines that have different **size** displays, we require high quality binary image scale transformation. This paper proposes a new method for binary image **reduction** for document images including dithered images. First we separate dithered image areas from text image areas using the dispersion of black **pixels** and the shapes of photographs. Then the text images and dithered images are **reduced** by methods suited to each type of area. We tested the quality of images using the MOS (Mean Opinion Score), and obtained the result that this method has 0.9 **point** higher quality than the conventional method. This method can perfectly separate each area when the **character size** in the text image is larger than 5.6 **points** .
...Identifiers: binary image **reduction** ; ...

...black **pixels** ; ...

... **character size**

26/3,K/7 (Item 7 from file: 2)
DIALOG(R) File 2:INSPEC
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5753546 INSPEC Abstract Number: C9712-7445-038

Title: Neural network based auto tag identification system

Author(s): Prabhakaran, N.; Palakkat, M.; De-Wei Yang

Author Affiliation: Sch. of Comput. Sci., Florida Int. Univ., Miami, FL, USA

Conference Title: 1997 IEEE International Conference on Systems, Man, and Cybernetics. Computational Cybernetics and Simulation (Cat. No.97CH36088-5) Part vol.4 p.3582-4 vol.4

Publisher: IEEE, New York, NY, USA

Publication Date: 1997 Country of Publication: USA 5 vol. 4535 pp.

ISBN: 0 7803 4053 1 Material Identity Number: XX97-02540

U.S. Copyright Clearance Center Code: 0 7803 4053 1/97/\$10.00

Conference Title: 1997 IEEE International Conference on Systems, Man, and Cybernetics. Computational Cybernetics and Simulation

Conference Sponsor: Syst., Man, & Cybernetics Soc. IEEE

Conference Date: 12-15 Oct. 1997 Conference Location: Orlando, FL, USA

Language: English

Subfile: C

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...Abstract: tag is captured by an electronic eye under a well-lit condition at the entry **point** of the toll collection. Next, the rectangular tag area is extracted from the color image with image filters. Subsequently, the bounding rectangle of each **character** of the tag image is partitioned. Then each **segment** is normalized to the standard orientation and **size** . Also, the color of the **character segment** is transformed into a black and white (B&W) image. A feedforward neural net has been trained to distinguish a fixed set of B&W image **characters** (alphabets and numerals). In the second stage, each **character segment** image of the auto tag is fed to the neural net and the classification results...

... The simplicity of the approach relies on the standardization of the

image and converting each **character segment** image into 1-bit B&W **pixels** . This facilitates in the **reduction** of the input vector **size** for the neural net.

...Descriptors: optical **character** recognition
...Identifiers: image **segment** normalization...

...standard **size** ; ...

... **character** recognition...
... **character segment** image classification

26/3,K/8 (Item 8 from file: 2)
DIALOG(R)File 2:INSPEC
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5708996 INSPEC Abstract Number: B9711-6140C-223, C9711-1250-113
Title: Generating stable structure of a color texture image using scale-space analysis with non-uniform Gaussian kernels

Author(s): Morita, A.; Tanaka, M.

Author Affiliation: Fac. of Eng., Yamaguchi Univ., Ube, Japan

Conference Title: Proceedings IWISPO '96. Third International Workshop on Image and Signal Processing on the Theme of Advances in Computational Intelligence p.199-202

Editor(s): Mertziros, B.G.; Liatsis, P.

Publisher: Elsevier, Amsterdam, Netherlands

Publication Date: 1996 Country of Publication: Netherlands xx+708 pp.

ISBN: 0 444 82587 8 Material Identity Number: XX97-00409

Conference Title: Proceedings of Third International Workshop on Image and Signal Processing on the Theme of Advances in Computational Intelligence (ISBN 0 444 82587 8)

Conference Sponsor: IEEE; Inst. Meas. & Control; Control Technol. Transfer Network

Conference Date: 4-7 Nov. 1996 Conference Location: Manchester, UK

Language: English

Subfile: B C

Copyright 1997, IEE

...Abstract: color texture image recognition. It is especially important to distinguish between the textures and understand **characters** of similar color texture. The authors proposed new scale-space analysis generated by non-uniform...

... surfaces to generate non-uniform Gaussian scale-space from observations of a limited number. Singular **points** , where the topology of zero-crossing surface **changes** are plotted in new scale-space. A filter parameter for the biggest **size** chunk enclosed by a topology **change** surface is selected as an optimal parameter of a **pixel** . The optimal filter and the image description are calculated by this approach for a natural...

...Identifiers: singular **points** ; ...

...zero-crossing surfaces **change** topology...

...optimal **pixel** parameter

26/3,K/9 (Item 9 from file: 2)
DIALOG(R)File 2:INSPEC
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5022916 INSPEC Abstract Number: C9509-1250B-018

Title: A study on the knowledge-based thinning algorithm that preserve the shape of the Korean character image

Author(s): Kwak Yoonsik; Choi Kihyung

Author Affiliation: Dept. of Comput. Eng., Chungju Nat. Univ., South Korea

Conference Title: Proceedings of the Eighth IEEE Symposium on Computer-Based Medical Systems (Cat. No.95CB35813) p.173-9

Publisher: IEEE Comput. Soc. Press, Los Alamitos, CA, USA

Publication Date: 1995 Country of Publication: USA x+348 pp.

ISBN: 0 8186 7117 3

U.S. Copyright Clearance Center Code: 1063-7125/95/\$4.00

Conference Title: Proceedings Eighth IEEE Symposium on Computer-Based Medical Systems

Conference Sponsor: IEEE Comput. Soc. Tech. Committee on Comput. Med.; IEEE South Plains Sect.; SPIE - Int. Soc. Opt. Eng.; Texas Tech Univ.; Texas Tech Univ. Health Sci. Center

Conference Date: 9-10 June 1995 Conference Location: Lubbock, TX, USA

Language: English

Subfile: C

Copyright 1995, IEE

Title: A study on the knowledge-based thinning algorithm that preserve the shape of the Korean character image

Abstract: The thinning algorithm is a preprocessing technique that is an important **part** of image processing techniques. As the scope of its applied and related fields, such as **character** recognition systems, has been wider, so has its research been active. A Korean **character** consists of an initial phoneme, a medial vowel and a final phoneme. It has the aspect that, according to its placement, its **size** and shape can be **changed**. Because of this, and more specifically since all three elements should be combined or connected in some way to produce a **character**, there occurs a problem of the distorted shape in the curved and the connected areas. This problem is mainly due to the irregular thickness of an object **pixel**, and seriously affects the Korean **character** recognition system, which uses the curved and the connected shape information for its recognition variable. This article is on a knowledge-based thinning algorithm which deals with printed Korean **character** images. It is intended to **reduce** the distortion rate of a Korean **character** image to its minimum level. Furthermore, I believe that this algorithm not only helps to enhance the effectiveness of the **character** recognition system, but it can also be applied as a medical image preprocessing technique, e...

Descriptors: **character** sets...

...optical **character** recognition

...Identifiers: Korean **character** image shape preservation...

... **character** recognition systems...

...irregular object **pixel** thickness

26/3,K/10 (Item 10 from file: 2)

DIALOG(R)File 2:INSPEC

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4603394 INSPEC Abstract Number: B9404-6140C-002, C9404-1250B-002

Title: Off-line recognition of Hangul handwritten in sammool style

Author(s): Seong-Whan Lee; Jeong-Seon Park

Journal: Journal of the Korea Information Science Society vol.20, no.10 p.1450-8

Publication Date: Oct. 1993 Country of Publication: South Korea

CODEN: HJKHDC ISSN: 0258-9125
Language: Korean
Subfile: B C

...Abstract: best use of characteristics of Hangul which consists of straight line components for the most **part**, directional components-horizontal, vertical, right up diagonal and left up diagonal lines-are extracted from...

... to touching stroke variations, the mesh is determined dynamically according to the density of black **pixels**. As this type of feature extraction methods do not need the **size** normalization and/or the thinning process, and as the number of classes to be matched in the classification process is significantly **reduced** by the restrictions in writing style, very high speed of processing and recognition rate can...

...performed, and more than 90% of correct recognition rate and 0.17 second per one **character** on the PC 486 (33 MHz) of recognition speed are obtained. These results reveal that...

...Descriptors: optical **character** recognition

26/3,K/11 (Item 11 from file: 2)
DIALOG(R)File 2:INSPEC
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03980686 INSPEC Abstract Number: C91064167

Title: High precision touchscreens: design strategies and comparisons with a mouse

Author(s): Sears, A.; Shneiderman, B.

Author Affiliation: Dept. of Comput. Sci., Maryland Univ., College Park, MD, USA

Journal: International Journal of Man-Machine Studies vol.34, no.4
p.593-613

Publication Date: April 1991 Country of Publication: UK

CODEN: IJMMBC ISSN: 0020-7373

Language: English

Subfile: C

...Abstract: a mouse. The task was the selection of rectangular targets 1, 4, 16 and 32 **pixels** per side (0.4*0.6, 1.7*2.2, 6.9*9.0, 13.8*17.9 mm respectively). Touchscreen users were able to **point** at single **pixel** targets, thereby countering widespread expectations of poor touchscreen resolution. The results show no difference in performance between the mouse and touchscreen for targets ranging from 32 to 4 **pixels** per side. In addition, stabilization significantly **reduced** the error rates for the touchscreen when selecting small targets. These results imply that touchscreens, when properly used, have attractive advantages in selecting targets as small as 4 **pixels** per **size** (approximately one-quarter of the **size** of a single **character**). A variant of Fitt's law is proposed to predict touchscreen pointing times. Ideas for...

...Identifiers: single **pixel** targets...

26/3,K/12 (Item 12 from file: 2)
DIALOG(R)File 2:INSPEC
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01952311 INSPEC Abstract Number: B82060421, C82043605

Title: Highly efficient data compression method for newspaper image data

Author(s): Ishii, A.; Kouno, K.; Maezawa, Y.

Author Affiliation: Fujitsu Ltd., Tokyo, Japan
Journal: Fujitsu Scientific and Technical Journal vol.18, no.2 p.
199-226
Publication Date: June 1982 Country of Publication: Japan
CODEN: FUSTA4 ISSN: 0016-2523
Language: English
Subfile: B C

...Abstract: amounts of image data, a highly efficient image data compression unit must be introduced to **reduce** data file **size** and data transfer time. The correlation between **picture elements** in screen dot image data is quite different from that in facsimile compression data. It is found that in the predictive coding method, which **reduces** redundancy in screen dot image data, the most efficient reference **picture elements** are information on three neighboring screen dots. Based on this finding, an adaptive predictive split coding method is developed which predicts and encodes screen dot image data and **character** image data according to the most adaptive reference **picture elements**. This coding method utilizes a variable length control code system to prevent **reduction** of the compression factor when different kinds of data are used. In experiments designed for...

... coding method proved to be a highly efficient compression method for encoding full page, page **segment**, and **character font** data.

...Identifiers: **picture elements** ; ...

...page **segment** ; ...

... **character font** data

26/3,K/13 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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03406040 Genuine Article#: PC770 No. References: 51
Title: FAST NONSUPERVISED 3D REGISTRATION OF PET AND MR-IMAGES OF THE BRAIN
Author(s): MANGIN JF; FROUIN V; BLOCH I; BENDRIEM B; LOPEZKRAHE J
Corporate Source: CEA,SERV HOSP FREDERIC JOLIOT,4 PL GEN LECLERC/F-91401
ORSAY//FRANCE//; TELECOM PARIS/PARIS//FRANCE/
Journal: JOURNAL OF CEREBRAL BLOOD FLOW AND METABOLISM, 1994, V14, N5 (SEP)
, P749-762
ISSN: 0271-678X
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

...Abstract: up the core of this surface-matching algorithm. The optimal transformation is inferred from the **minimization** of a quadratic generalized distance between discrete surfaces, taking into account between-modality differences in the localization the **segmented** surfaces. The **minimization** process is efficiently performed via the precomputation of a 3D distance map. Validation studies using...

...phantom have shown that the maximum registration error was of the order of the PET **pixel size** (2 mm) for the wide variety of tested configurations. The software is routinely used today...

Research Fronts: 92-1132 002 (FAST ALGORITHMS FOR MATHEMATICAL MORPHOLOGY; EUCLIDEAN DISTANCE MAPS; OPTICAL **CHARACTER** -RECOGNITION; FUZZY-ATTRIBUTE GRAPH)
92-2388 001 (POSITRON EMISSION TOMOGRAPHY; 3-DIMENSIONAL FUNCTIONAL BRAIN IMAGES...

26/3,K/14 (Item 1 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online
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01523891 ORDER NO: AAD97-01347

SIZE REDUCTION OF A NEURAL NETWORK (BACK-PROPAGATION) BY A GROUP
TECHNOLOGY/NEURAL NETWORK HYBRID MODEL (CLASSIFICATION)

Author: WASHINGTON, CHRISTOPHER

Degree: PH.D.

Year: 1996

Corporate Source/Institution: UNIVERSITY OF VIRGINIA (0246)

Source: VOLUME 57/08-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 5243. 377 PAGES

SIZE REDUCTION OF A NEURAL NETWORK (BACK-PROPAGATION) BY A GROUP
TECHNOLOGY/NEURAL NETWORK HYBRID MODEL (CLASSIFICATION)

...a full-scale application is a major disadvantage in any of the previously stated areas. **Reduction** of a neural network's training time would allow them to be implemented in many more full-scale applications.

Recently, the **reduction** in training time of a neural network has been intensely investigated. Decision trees and bounds on the **size** of a neural network have been applied by several researchers. The removal of un-important...

...neural network by some criteria (Optimal Brain Damage-second derivative information) was implemented in handwritten **character** (zip codes) recognition. In each of these previous cases, the researchers reported that their methods...

...neural network). First, GT is a philosophy or methodology that relates the similar characteristics of **parts** with their respective process routes to identify and form groups in a manufacturing environment. There...

...GT in this model will be the same as in the manufacturing environment. From the **pixel** representation of the training objects, GT will divide the **pixels** and objects into groups. This will help to remove redundancy from the input data set and give more insight into which **pixels** have the greatest influence on the neural network for a given training data set.

There...

...most popular supervised learning method. First, it is usually implemented in neural networks, because it **changes** the values of weights in response to the network error. Next, the weights are **changed** by the Delta rule, which is designed to **minimize** sum-squared error of the network. The overall accuracy of the network is improved by...

...be demonstrated in a pattern recognition application with a data set of 16 x 16 **pixel** representations of handwritten **characters** (numbers 0-10). In addition, it will be demonstrated in a classification application with a ...

26/3,K/15 (Item 1 from file: 94)
DIALOG(R)File 94:JICST-EPlus
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02793393 JICST ACCESSION NUMBER: 96A0632434 FILE SEGMENT: JICST-E
Structure Description of Color Texture using Scale-Space Analysis.
MORITA SATORU (1); TANAKA MINORU (1)

(1) Yamaguchi Univ., Fac. of Eng.
Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report
(Institute of Electronics, Information and Communication Enginners),
1996, VOL.96,NO.116(IE96 14-34), PAGE.7-12, FIG.16, REF.11
JOURNAL NUMBER: S0532BBG
UNIVERSAL DECIMAL CLASSIFICATION: 681.3:621.397.3
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication

...ABSTRACT: color texture image recognition. Especially, it is important
to distinguish between the textures and undewrstand **characters** of
similar color texture. So we proposed new scale-space analysis
generated by non-uniform...

...surfaces to generate non-uniform Gaussian scale-space from observations
of a limited number. Singular **points** , where the topology of
zero-crossing surfaces **changes** are plotted in new scale-space. A
filter parameter for the biggest **size** of chunk enclosed by topology
change surface is selected as an optimal parameter of a **pixel** .
Optimal filter and the image description are calculated by this
approach for natural color image...

...DESCRIPTORS: noise **reduction** ;
...BROADER DESCRIPTORS: **reduction** ;

26/3,K/16 (Item 2 from file: 94)
DIALOG(R)File 94:JICST-EPlus
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02398606 JICST ACCESSION NUMBER: 95A0742263 FILE SEGMENT: JICST-E
Image Structure Description using Affine Scale-Space Analysis.
MORITA SATORU (1); TANAKA MINORU (1)
(1) Yamaguchi Univ., Fac. of Eng.
Joho Shori Gakkai Kenkyu Hokoku, 1995, VOL.95,NO.68(CV-95), PAGE.25-32,
FIG.14, REF.13
JOURNAL NUMBER: Z0031BAO ISSN NO: 0919-6072
UNIVERSAL DECIMAL CLASSIFICATION: 681.3:621.397.3
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication

...ABSTRACT: for texture image recognition. Especially, it is important to
distinguish between the textures and understand **characters** of similar
texture. So we proposed new scale-space analysis generated by
non-uniform Gaussian...

...surfaces to generate non-uniform Gaussian scale-space from observations
of a limited number. Singular **points** , where the topology of
zero-crossing surfaces **changes** are plotted in new scale-space. A
filter parameter for the biggest **size** of chunk enclosed by topology
change surface is selected as an optimal parameter of a **pixel** .
Optimal surface parameters for all **pixels** are calculated from
observation of a limited scale using parameter surface analysis of
optimal filter...

26/3,K/17 (Item 3 from file: 94)

DIALOG(R)File 94:JICST-EPlus
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01702528 JICST ACCESSION NUMBER: 93A0269356 FILE SEGMENT: JICST-E
Recognition of Arabic Printed Scripts by Dynamic Programming Matching Method.

FAKIR M (1); SODEYAMA C (2)

(1) Hitachi, Ltd., Tochigi-ken, JPN; (2) Nagaoka Univ. Technology,
Nagaoka-shi, JPN

IEICE Trans Inf Syst(Inst Electron Inf Commun Eng), 1993, VOL.E76-D,NO.2,
PAGE.235-242, FIG.18, REF.13

JOURNAL NUMBER: L1371AAJ ISSN NO: 0916-8532

UNIVERSAL DECIMAL CLASSIFICATION: 681.3:165

LANGUAGE: English COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

...ABSTRACT: to extract features, Dynamic programming(DP) matching technique, and a topological classifier to recognize the **characters**. A process of **characters** recognition is further divided into four **parts**: preprocessing, segmentation of a word into **characters**, features extraction, and **characters** identification. The preprocessing consists of the following steps: smoothing to remove noise, baseline drift correction...

...and lines separation by making an horizontal projection profile. After preprocessing, Arabic printed words are **segmented** into **characters** by analysing the vertical and the horizontal projection profiles using a threshold. The **character** or stroke obtained from the segmentation process is normalized in **size**, then thinned to provide it skeleton from which features are extracted. As in the procedure...

...are selected. The coordinates(R, .THETA.) of the selected cells are the extracted features. Next, **characters** are classified in two steps: In the first one, the **character** main body is classified using DP matching technique, and features selected in the HT space...

...geometry of the stress marks are used by the topological classifier to completely recognize the **characters**. The topological features used to classify each type of the stress mark are the width, the **height**, and the number of black **pixels** of the stress marks. Knowing both the main group of the **character** body and the type of the stress mark (if any), the **character** is completely identified. (author abst.)

...DESCRIPTORS: **character** recognition...

...noise **reduction** ;

...BROADER DESCRIPTORS: **reduction** ;

26/3,K/18 (Item 1 from file: 95)

DIALOG(R)File 95:TEME-Technology & Management
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00895367 I95056012352

Partial **eigenvalue decomposition** for large image sets using run-length **encoding**

(Partielle Eigenwertzerlegung fuer grosse Bildmengen mit Hilfe der Laufzeitcodierung)

Roseborough, JB; Murase, H

NTT Basic Res. Labs., Kanagawa, Japan

Pattern Recognition, v28, n3, pp421-430, 1995
Document type: journal article Language: English
Record type: Abstract
ISSN: 0031-3203

Partial eigenvalue decomposition for large image sets using run-length encoding

ABSTRACT:

...considered to require too much computation to be practical. We propose a new method for **reducing** the computation of **partial** eigenvalue decomposition based on run-length encoding. In this method, called the constant regions method, spatial encoding is used to **reduce** storage and computation, the coeigenvectors are then computed and later converted to eigenvectors. For simple images, and when the number of **pixels** in an image is much larger than the number of images, the resulting algorithm is ...

...power method, the conjugate gradient method, and a so-called direct method for computing the **partial** eigenvalue decomposition are also presented, and recommendations are given for when each method should be...
...DESCRIPTORS: CODING; INFORMATION THEORY; RUNNING TIME; CALCULATING TIME; MEMORY LOCATION; ALGORITHM; FACTORIZATION; GRADIENT METHOD; PERFORMANCE EVALUATION; **CHARACTER** RECOGNITION; EIGENVECTORS; **SIZE** --
IDENTIFIERS: RUNLENGTH CODES; **PARTIAL** EIGENVALUE DECOMPOSITION; LARGE IMAGE SETS; RUN LENGTH ENCODING; CONSTANT REGIONS METHOD; COEIGENVECTORS; SUB SPACE METHODS...

26/3,K/19 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal
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13806376 PASCAL No.: 98-0521563
Thinning and line segmentation by line following techniques
Document recognition V : San Jose CA, 28-29 January 1998
LARMAGNAC J P
LOPRESTI Daniel P, ed; JIANGYING ZHOU, ed
Institut Universitaire de Technologie, Universite de Saint Etienne, 42023
, France
International Society for Optical Engineering, Bellingham WA, United States.
Document recognition. Conference, 5 (San Jose CA USA) 1998-01-28
Journal: SPIE proceedings series, 1998, 3305 210-219
Language: English

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... Thinning of elongated shapes into chain coded lines. - Extraction of the main features (straight line **segments**, arcs, corners). -Thinning process A square perimeter is developed around each current **pixel**, initially at level 255, belonging to a line being extracted. The **size** of the square is progressively increased until one or more stick(s), framed by background **pixels**, appear(s) on the perimeter. From the beginning and the final indices of each stick we deduce the Freeman code leading to the following **pixel** on the line. Generally, two sticks are present on the square perimeter. One corresponds to the backward direction. To discard the non valid stick, each new detected **pixel** is marked by lowering its value by one shift right. In presence of a fork, or crossing **point**, there are more than one valid stick : - The closest direction to the previous one is

chosen. - The current **pixel** is marked and stored in a list of branching **points** , for later processing. -Filtering and segmentation Median filtering of extended codes, obtained from the corrected...

... Freeman's codes allows to eliminate much of the quantization noise, without altering significant direction **changes** , and to **segment** the line into straight **segments** , arcs and corners.

English Descriptors: Median filter; Document processing; Image processing; Image analysis; Image segmentation; **Character** recognition

26/3,K/20 (Item 2 from file: 144)
DIALOG(R)File 144:Pascal
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13733529 PASCAL No.: 98-0425738

Scanning force microscopy characterization of viscoelastic deformations induced by precontact attraction in a low cross-link density gelatin film
HAUGSTAD G; GLADFELTER W L; JONES R R

Center for Interfacial Engineering, 187 Shepherd Laboratories, University of Minnesota, Minneapolis, Minnesota 55455, United States; Department of Chemistry University of Minnesota, Minneapolis, Minnesota 55455, United States; Sterling Diagnostic Imaging, Brevard, North Carolina 28712, United States

Journal: Langmuir, 1998, 14 (14) 3944-3953
Language: English

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...in diameter by as much as 3 orders of magnitude. The stretching of the film **changes** the stiffness of the polymer network and its frictional **character** . A precise correspondence of **height** and frictional force is quantified in histograms of the number of image **pixels** versus **height** or frictional force, and as a function of lateral distance from the center of approach...

... exponential time dependence, consistent with a distribution of relaxation times. Film age also affects the **size** of the doming region: an increase to a maximum volume is observed, followed by a...

French Descriptors: Interaction **pointe** surface; Reseau polymere interpenetre; Polymere reticule; Macromolecule biologique; Gelatine; Deformation viscoelastique; Relaxation moleculaire; Microscopie champ...

?

30/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

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01848290 INSPEC Abstract Number: B82024572

Title: Variable-size character generator

Author(s): Moreau, R.

Author Affiliation: IBM Corp., Armonk, NY, USA

Journal: IBM Technical Disclosure Bulletin vol.24, no.4 p.2210-11

Publication Date: Sept. 1981 Country of Publication: USA

CODEN: IBMTAA ISSN: 0018-8689

Language: English

Subfile: B

Title: Variable-size character generator

Abstract: Describes a circuit which enables the output data flow of a read-only storage (ROS) **character** generator of a display system to be **reduced** to four bits although the **character** width may have either a four-, **eight** -, twelve- or **sixteen** -dot definition.

Identifiers: ROS **character** generator...

?